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## Patent Abstracts of Japan

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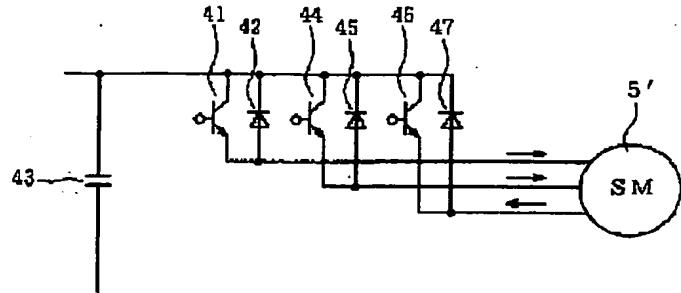
APPLICANT : NISSAN MOTOR CO LTD;

INVENTOR : KIKUCHI TOSHIO;

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TITLE : ELECTRIC SYSTEM FOR ELECTRIC AUTOMOBILE

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ABSTRACT : PROBLEM TO BE SOLVED: To prevent a smoothing capacitor from being applied with a voltage higher than a required level by short-circuiting the input terminals of a synchronous motor thereby interrupting power supply from an inverter to the motor.

SOLUTION: In a voltage type inverter, switching elements, i.e. transistors 41, 44, 46, in the upper arm are entirely turned on to bring about a state for outputting a zero voltage vector. Each phase current flows into the input terminal of a synchronous motor 5' in the direction shown by an arrow and a short circuit is constituted of the transistors 41, 44 and a diode 47. More specifically, a short circuit can be constituted regardless of the direction of three-phase current by turning the upper arm at switching section entirely. This constitution prevents a voltage higher than a required level from being applied to a smoothing capacitor 43.

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